

Majority										
10	20	30	40	50	60					
MAESSDKLYRVEYAKSERASCCKCSESI	PKDSLRLMAIMVQSPHFDDGKVPIIWHYPSCFWKV	humanPARP1								
MAAR		humanPARP2								
MS		humanPARP3								
H		murinePARP								
Majority										
70	80	90	100	110	120					
GHISIRHPDVEVDGGSFSELRWDDQKKVKKTTAEAGGVTTGGKQDGGIGSKAEKTLQDFAAEYAKS	humanPARP1									
		humanPARP2								
		humanPARP3								
		murinePARP								
Majority										
130	140	150	160	170	180					
HIRSTCKGCHEKIEKGGVRLSKKMHVDPEKPKQLGHI DRWHYHPQCPCVKNREELGFRPEYSASQ	humanPARP1									
		humanPARP2								
		humanPARP3								
		murinePARP								
Majority										
190	200	210	220	230	240					
LKGFSLLATETEDKEALKKQLPQVKSEGGKHKGGKVDGVDEVAKKKSKKKEKDSDSKLEKALKA	humanPARP1									
		humanPARP2								
		humanPARP3								
		murinePARP								
Majority										
250	260	270	280	290	300					
QNDLIWNIKDELKKVCSTNDLKELLIFNKQQVPSGESAILDRVADGVMFGALLPCEECSG	humanPARP1									
		humanPARP2								
		humanPARP3								
		murinePARP								

Fig. 1(1)

	Y C G		A P K R K X W V		Majority		
	310	320	330	340	350	360	
301	Q L V P K S D A Y Y C T G D V T A W T K C M V K T Q T P N R K E W V T P K E F R E I S Y L K K L K V K K Q D R I F P P E						humanPARP1
88	K V G - K A H V Y C E G N						humanPARP2
9			A P K P K P W V				humanPARP3
2			A P K R K A S V				murinePARP
	T E G S						Majority
	370	380	390	400	410	420	
361	T S A S V A A T P P P S T A S A P A A V N S S A S A D K P L S N H K I L T L G K L S R N K D E V K A M I E K L G G K L T						humanPARP1
100							humanPARP2
18	T E G P						humanPARP3
11	T E G S						murinePARP
			E K K K X R Q X X X E E D X P R S T A E A L				Majority
	430	440	450	460	470	480	
421	G T A N K A S L C I S T K K E V E K M N K K M E E V K B A N I R V V S E D F L Q D V S A S T K S L Q E L F L A H I L S P						humanPARP1
100							humanPARP2
22		E K K K G R Q A O R E E D P P R S T A E A L					humanPARP3
15		K K Q R Q O T E E E D S F R S T A E A L					murinePARP
							Majority
	K A X P A E X R X I R V D P X C P L S X N P O X Q V X E D						
	490	500	510	520	530	540	
481	W G A E V K A E P V E V A P R G K S G A A L S K K S K G Q V K E E G I H K S E K R M K L T L K G G A A V D P D S G L E						humanPARP1
100							humanPARP2
44	K A I P A E K R I I R V D P T C P L S S N P G T O V Y E D						humanPARP3
35	R A A P A D H R V I R V D P S C P F S R N P G I Q V H E D						murinePARP
							Majority
	V Y D C T L N Q T N I X H N N N K F Y I I Q L L E D D X - R P F F X C W N R R W G R V G E - V G Q S K						
	550	560	570	580	590	600	
541	H S A H V L E K G G K V F S A T L G L V D I V K G T N S Y Y K L Q L L E D D K E N R Y W I F R S W O R V G T V I G S N K						humanPARP1
100		D V Y D V M L N Q T N L Q P N N N K Y Y I I Q L L E D D A Q R N P S V W H R W O R V G K M - G Q H S					humanPARP2
73		Y N C T L N O T N I E N N N N K F Y I I Q L L Q D S N - R P F T C W N R R W G R V G E - V G Q S K					humanPARP3
44		Y D C T L N Q T N I G N N N H K F Y I I Q L L E E Q S - R P F - C W N R R W G R V G E - V G Q S K					murinePARP

Fig. 1(2)

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601	LNHFTX - LEDAKEDFXKFKFXERTKNNWEEERDXFVKXKPGKYTLLLEV DY - XEXEDEEVA VVK - Majority	610	620	630	640	650	660
149	LEQHPSK - ED A I E H F H K L Y E E K T G N A W H S K N - F T K Y P K K Y P L E I D Y G - - - Q D E E A V K K - humanPARP1	610	620	630	640	650	660
119	LVA CS G H L N K A K E I P Q K K F L D K T K N N W E D R E K F E K V P Q K Y D N L Q M D Y A T N T Q D E E T K K E humanPARP2	610	620	630	640	650	660
109	INHPT R - LEDAKKODP E K K F R E K T K N N W A E R D H P V S H P P Q K Y T L I E V Q - - A E D E A O E A V V K - humanPARP3	610	620	630	640	650	660
	MNHFTC - LEDAKKDP K K K F F W E K T K N K W E E R D R E V A Q P N K Y T L I E V Q - - G E A E S Q E A V V K A murinePARP	610	620	630	640	650	660
	- SLXVDXGVPVSTVXKRVQPCSLDPATQXLI TN I F S V E M P K N A M X L M X L D V K K M P L G K L S K Majority	610	620	630	640	650	660
655	- - - L T V N P G T K S K L P K P V Q - - - - - D L I K H I P D V E S H K K A N V E Y E I D L Q K H P L G K L S K humanPARP1	670	680	690	700	710	720
209	ES L K S P L K P E S O L D L R V Q - - - - - E L I K L I C H V Q A H E E M H X E H K Y N T K K A P L G K L T V humanPARP2	670	680	690	700	710	720
175	- - - V D R G P V R T V T K R V Q P C S L D P A T Q K L I T N I F S K E H P K N T M A L M D L D V K K H P L G K L S K humanPARP3	670	680	690	700	710	720
166	LSPOVDSG P V R T V V K - - - P C S L D P A T Q N L I T N I F S K E H P K N A M T L M N L D V K K H P L G K L T K murinePARP	670	680	690	700	710	720
	Q Q I A A G F A L E A L E E A X K X G T X G G Q S L E E L S S X P Y T V I P H D F G X S X P P L I N S P D X L Q A K K Majority	670	680	690	700	710	720
704	R O I A A Y S I L S E V Q Q A V S Q S S D S Q I L D - L S N R F Y T L I P H D P G M K K P P L L N N A D S V Q A K V humanPARP1	730	740	750	760	770	780
260	A Q I K A G Y Q S L K K I E D C I R A G O H G R A L M E - A C H E F Y T R I P H D F G L R T P P L I R T Q K E L S E K I humanPARP2	730	740	750	760	770	780
231	Q O I A R G F E A L E A L E E A L K G P T D G G Q S L E E L S S H P Y T V I P H N F G H S Q P P P I N S P E L L Q A K K humanPARP3	730	740	750	760	770	780
223	Q O I A R G F E A L E A L E E A L K G P T D G G Q S L E E L S S H P Y T V I P H N F G H S Q P P P I N S P E L L Q A K K murinePARP	730	740	750	760	770	780
	D H L L V L A D I E L A Q X L Q A X X E X S X K V E B V P H P L D R D Y Q L L K C Q L Q L D S Q S X E Y K V I Q T Y Majority	730	740	750	760	770	780
763	E H L D N L L D I E V A Y S L R G G S D D S K - - - - - D P I D V N Y E K L K T D I K V V D R D S E E A E I I R K Y humanPARP1	790	800	810	820	830	840
319	Q L E A L G D I E I A I K L V K T B L O - S P E - - - - - H P L D Q H Y R N L H C A L R P L D H E S Y E F K V I S O Y humanPARP2	790	800	810	820	830	840
291	D H L L V L A D I E L A Q A L Q A V S - E Q E K T V E E V P H P L D R D Y Q L L K C Q L Q L D S O A P E Y K V I Q T Y humanPARP3	790	800	810	820	830	840
283	D H L L V L A D I E L A Q A L Q A V S - E Q E K T V E E V P H P L D R D Y Q L L K C Q L Q L D S O A P E Y K V I Q T Y murinePARP	790	800	810	820	830	840
	L K Q T G A X T H C P Y - - T L X D I P K V E R E G E X D R F Q A H S K L O H R R L L W H G S N H A V V A Q I L S S G L Majority	790	800	810	820	830	840
818	V K N T H A T T H N A Y D L E V I D I F K I E R E G E C Q R Y K P P K Q L H N R R L L W H G S R T T H F A Q I L S Q O L humanPARP1	850	860	870	880	890	900
373	L Q S T H A P T H S D Y T H T L L D L P E V E K D G E K E A F R - - E D L H N R R L L W H G S R M S H N W V Q I L S H G L humanPARP2	850	860	870	880	890	900
350	L E Q T G S N H R C P - - - T L Q H I W K V N Q E G E E D R P O A H S K L O H R R L L W H G T N M A V V A I L T S G L humanPARP3	850	860	870	880	890	900
343	L K O T G N S Y R C P - - - N L R H V W K V N R E G E G D R P O A H S K L O H R R L L W H G T N V A V V A I L T S G L murinePARP	850	860	870	880	890	900

Fig. 1(3)

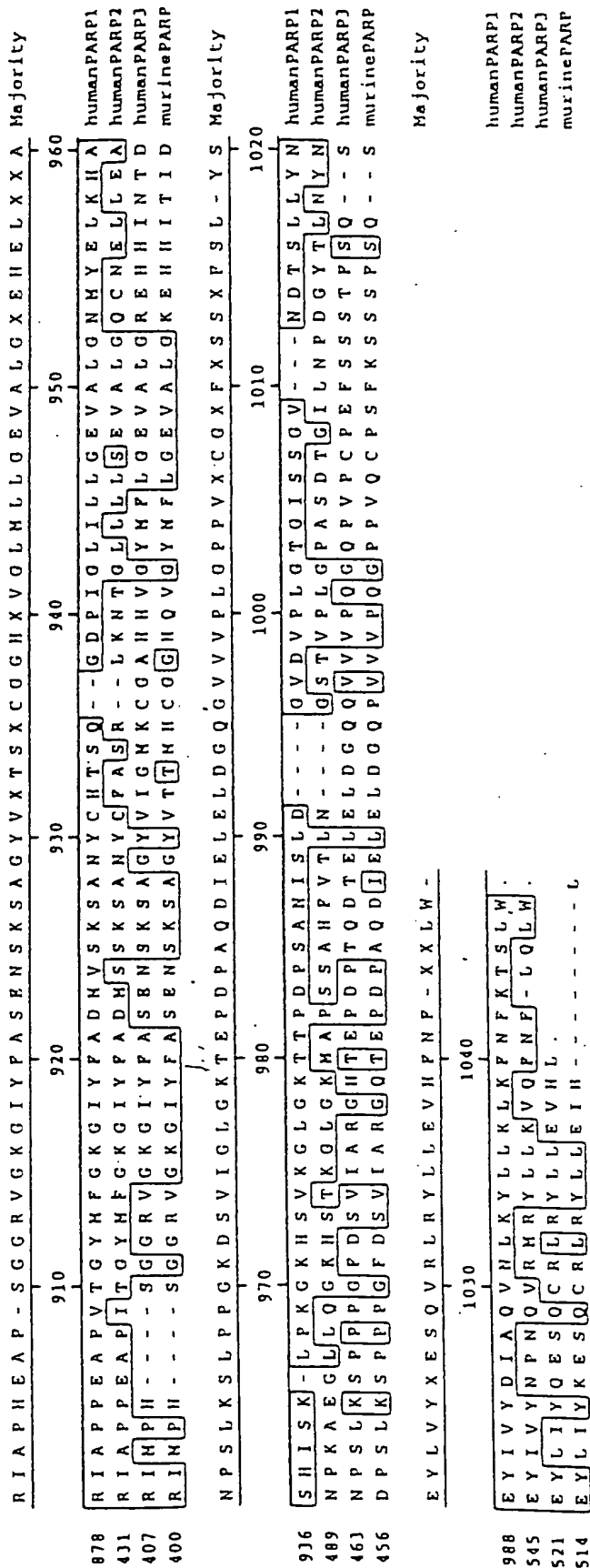


Fig. 1(4)

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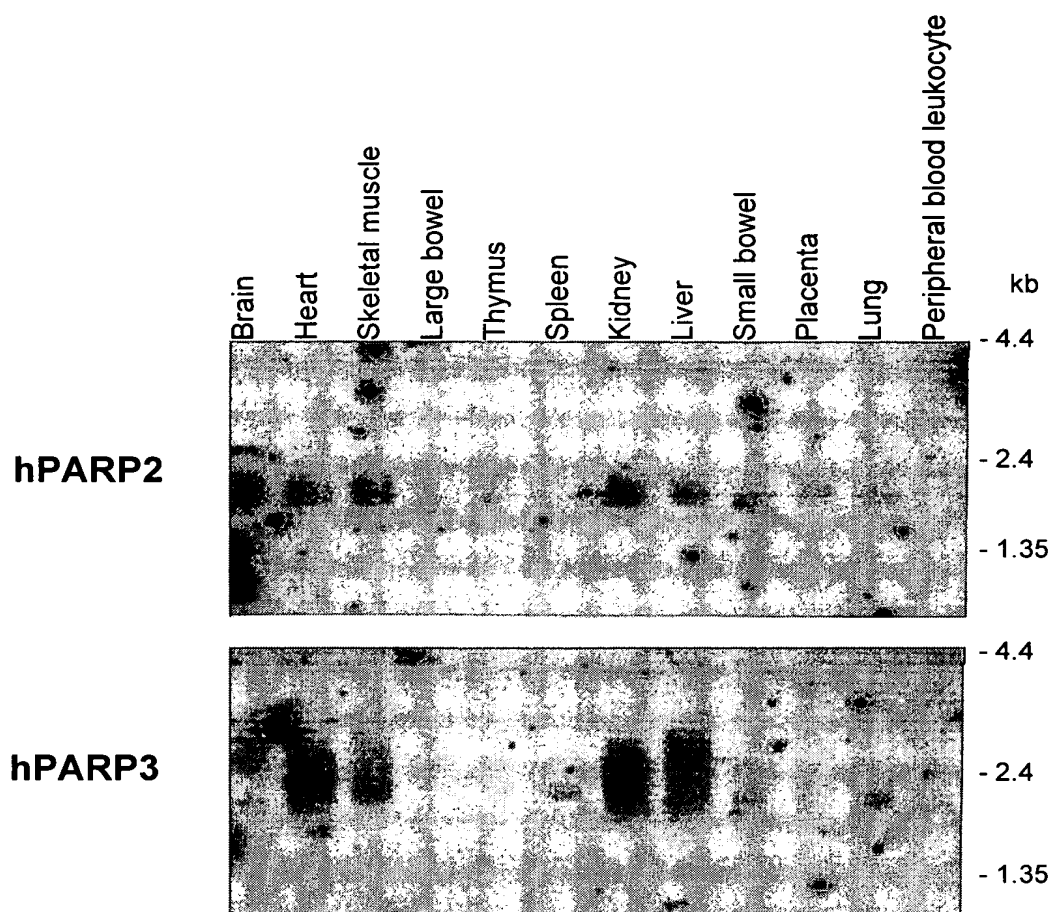
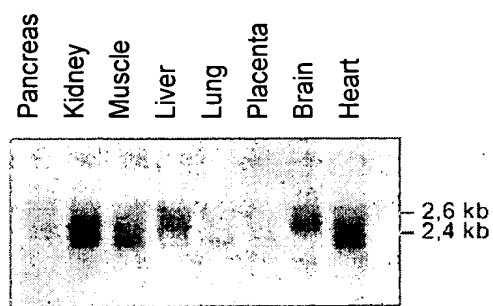
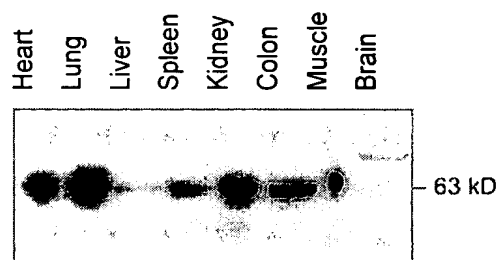


Fig. 2



Northern Blot Analysis
Human PARP3 Tissue Distribution

Fig. 3



Western Blot Analysis
PARP3 Tissue Distribution

Fig. 4

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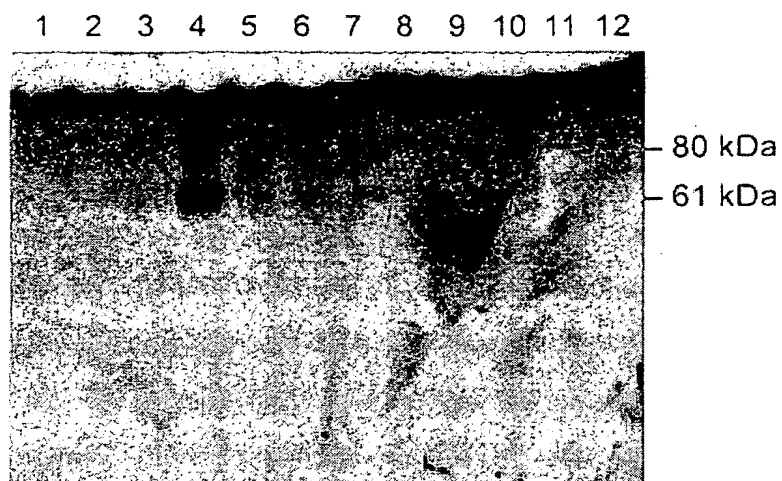


Fig. 5

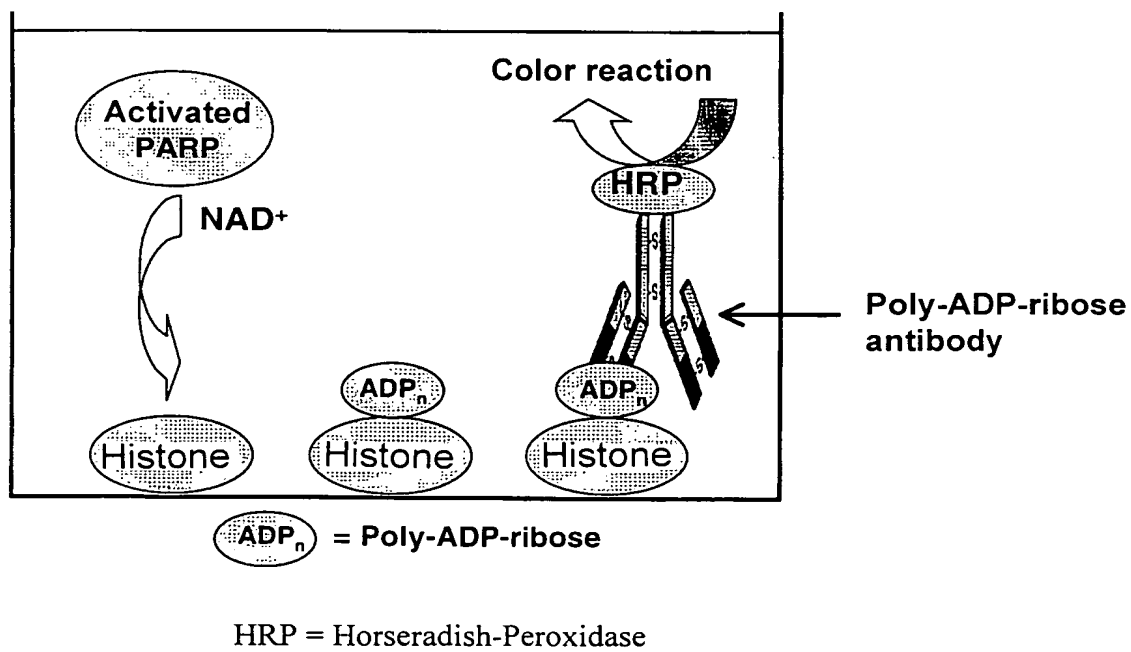


Fig. 6

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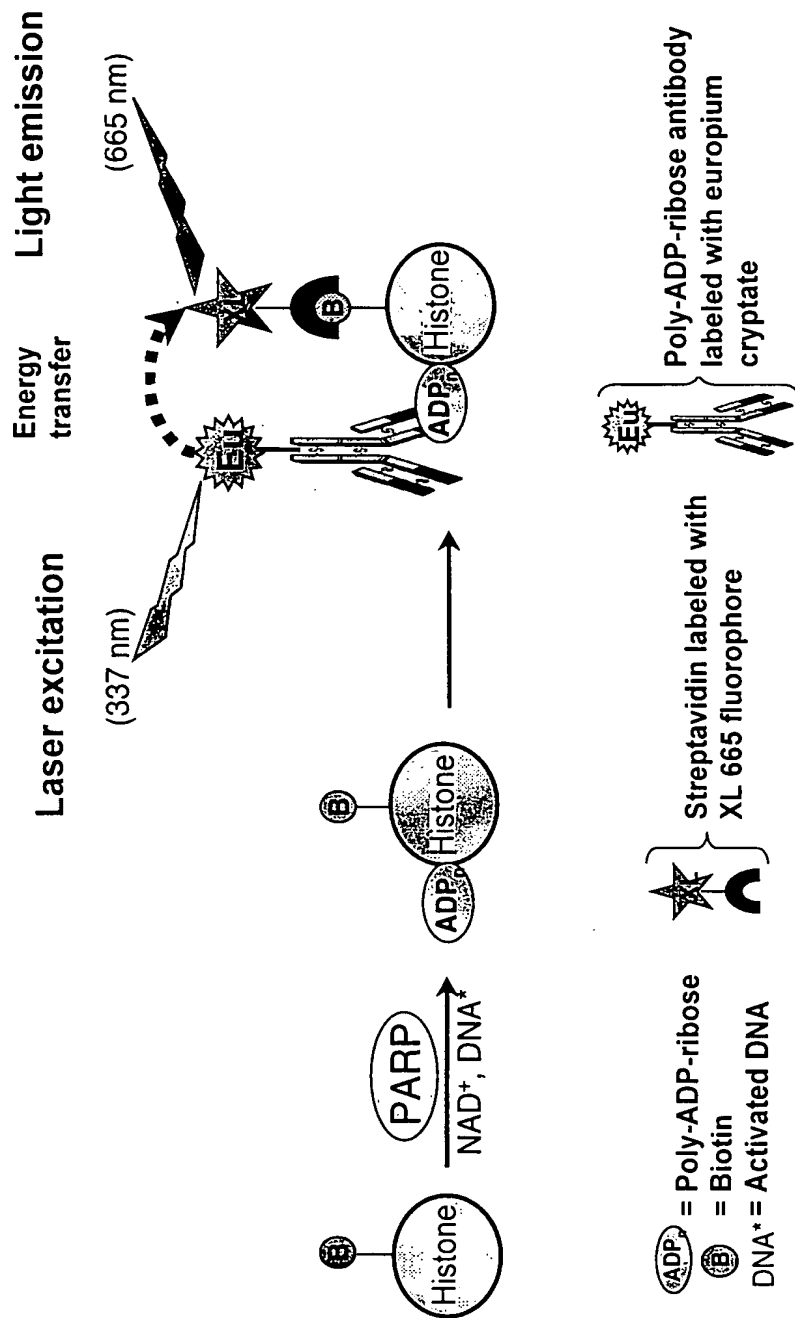


Fig. 7